

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

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PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/010851

International filing date (day/month/year)
28.09.2004

Priority date (day/month/year)
25.11.2003

International Patent Classification (IPC) or both national classification and IPC
D04B15/06, D04B15/34

Applicant
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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☒ This opinion has been established on the basis of a translation from the original language into the following language English , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	5,6,7,9-11
	No: Claims	1-4,8,12-15
Inventive step (IS)	Yes: Claims	6,7,9-11
	No: Claims	5
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Comments concerning section V:

1. EP-A-0 396 207 the teaching of which extends to medium and large diameter circular knitting machines (see page [=p.] 1, lines [=l.] 1-4; p.12, l.3-6) and which will therefore be referred to as D1 hereinbelow, already discloses a single cylinder circular knitting machine (see Figs.2 and 3) comprising a needle cylinder (80) that has a vertical axis and a sinker ring (280) that is connected coaxially to said needle cylinder (see p.27, l.16-17) proximate to the upper end of the needle cylinder (80), said sinker ring (280) having a plurality of radial slots (470), each of which accommodates at least one sinker (474), and wherein said sinker ring (280) is arranged inside the radial dimensions of said needle cylinder (see Fig.3), said sinkers (474) having a beak (484) that is directed toward the axis of the needle cylinder.

The subject-matter defined by independent claim 1 is therefore not considered new and appears not to comply with the requirements of Article 33(2) PCT.

2. GB-A-759 137 which primarily but not exclusively (see p.2, l.9-16; claim 1) refers to needle cylinders for use with small diameter circular knitting machines of the superimposed needle cylinder type and which will therefore be referred to as D2 hereinbelow, similarly already discloses a single cylinder circular knitting machine (see Figs.1 and 5) comprising a needle cylinder (1) that has a vertical axis and a sinker ring (8) that is connected coaxially to said needle cylinder (see p.3, l.29-32) proximate to the upper end of the needle cylinder (1), said sinker ring (8) having a plurality of radial slots (10), each of which accommodates at least one sinker (11), and wherein said sinker ring (8) is arranged inside the radial dimensions of said needle cylinder (see Fig.1; p.3, l.83-87), said sinkers (11) having a beak (see Figs.1 and 5) that is directed toward the axis of the needle cylinder (1).

The circular knitting machine according to claim 1 merely differs therefrom in that it comprises a medium or large diameter as generally suggested by D1 for knitting machines of the internal sinker top kind. Extending the teachings of D2 to medium or large diameter circular knitting machines is therefore considered obvious for the skilled person if so desired, all especially since the disclosure of D2 is not limited to sock or stocking double cylinder knitting machines.

The subject-matter defined by independent claim 1 would therefore also appear

not to meet the requirements of Article 33(3) PCT with respect to the combined prior art of D2 and D1.

3. The features according to the following embodiments of the invention according to independent claim 1 are also known in substance in conjunction with the features mentioned in the independent claim from D1 or D2 for the respective technical purpose as follows:

<u>Claim</u>	<u>Source</u>
2	D1: p.17, l.14-17; Fig.17; D2: Figs.1 and 5; p.1, l.63-67; p.2, l.93-119;
3	D1: p.27, l.36-43; D2: p.2, l.90-91; see the different positions of sinkers 11 in Figs.1 and 5 on the right and left, respectively;
4	sinker cap (D1: 28, 496; D2: 12), goblet-like element (D1: 496; D2: 29);
5	D2: Figs. 1 and 5;
8	D2: p.1, l.32-40;

The embodiments according to dependent claims 2 to 5 and 8 would therefore equally appear not to meet the requirements of either Article 33(2) or (3) PCT.

4. The sinker according to independent claim 12 or dependent claim 13 is not only known from D1 (Fig.17) or D2 (Figs.1 or 5), but also GB-A-245 928 (see Fig.3) which will henceforth be referred to as D3 already depicts a sinker (26) for a medium or large diameter circular knitting machine (p.2, l.82-84) comprising a laminar body provided with a beak (26a) proximate to a first one of its ends, said beak (26a) being directed toward the second, opposite end of the laminar body.

The sinker defined by independent claim 12 is therefore not considered new and would appear not to comply with the requirements of Article 33(2) PCT.

5. Again, the features according to the embodiments of the invention defined by dependent claims 13 to 15 are known in conjunction with the features mentioned in independent claim 12 from D3 as established by a mere comparison of the drawings according to Fig.6 of the application and Fig.3 of D3 taking account of the reference signs quoted in claims 13 to 15 for the corresponding features.

The embodiments according to dependent claims 13 to 15 would therefore equally appear not to meet the requirements of Article 33(2) PCT.

6. The additional features of the embodiment according to dependent claim 6, and claims 7 or 9 to 11 dependent on claim 6, are not reported in the relevant prior art for whatever the purpose. Including these features in a circular knitting machine otherwise according to D1 or D2 therefore is not considered obvious.

Accordingly, the subject-matter defined by dependent claims 6, 7, 9 to 11 would appear to comply with both the requirements of Article 33(2) and (3) PCT.

7. The subject-matter defined by claims 1 to 15 would be susceptible to industrial application and thus complies with the requirements of Article 33(4) PCT.

Comments concerning section VII:

1. Contrary to the requirements of Rule 6.3(b) PCT, the independent claims are not cast in the two-part form with respect to the closest prior art of D1.
2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.

Comments concerning section VIII:

1. The significance of the expression "radial slots" in claim 1 is unclear, contrary to the requirements of Article 6 PCT, for the following reasons:

As apparent from Fig.1 and Figs.3 to 5 of the application, the extension of the slot 7 is not strictly radial but owing to the particular shape of the sinker 8 also follows a vertical path between sinker sections 8f and 8e. The expression "radial" in the strict sense of the term seemingly does not apply to the sole embodiment of the invention and is considered misleading unless interpreted as meaning "a slot extending in a radial plane to the central vertical axis of the circular knitting machine".

The meaning of "radial slot" is however clear in conjunction with current dependent claim 6.

2. Dependent claim 15 refers to "said ... resting surface" the context of which with the

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remainder of the features recited in claims 12 or 13 is not clear. With reference to claims other than claim 14, the scope of claim 15 is unclear, contrary to the requirements of Article 6 PCT.